Activity Adaptation and Darwin vs. Lamarck

Selecting Adaptations

1. Which of the following would be classified as an adaptation (circle):

a) Giraffe's have long necks (S)
b) Rabbits may freeze in position when in the presence of predators (B)
c) Oxygenated blood travels through a pulmonary vein and deoxygenated blood travels through a pulmonary artery (P)
d) Humans have lungs (P) (S)
e) Some birds migrate to warmer climates. (B)
f) Jellyfish contain cnidocysts which are stinging cells that secrete a toxin to paralyze prey. (P) + (S)

2. Beside each of the statements above indicate each as:
(S) Structural, (P) Physiological or (B) Behavioral

Evolutionary Theory Comparison : Darwin vs. Lamarck

In explaining how Giraffe's came to have long necks:

	Statements:
1.	All Giraffes are born with short necks
2.	Giraffes are born with a variety of neck lengths
3.	Giraffes with long necks have a survival advantage over giraffe's with short necks
4.	It is more beneficial for giraffes to have a long neck length to suite their environment.
5.	All Giraffes will have long necks and be able to survive and reproduce.
6.	Only those Giraffes with the long necks survive and are able to reproduce
7.	Giraffes with long necks will mate to make long necked offspring, resulting in a long necked population in the next generation.

1. Place the following statements as belonging to Lamarck or Darwin / Wallace:

Statements belonging to Lamarck	Statements belonging to Darwin / Wallace
1, 4, 5, 7	2, 3, 6, 7

2. What is the difference between inheriting an acquired trait and inheriting a trait through natural selection?

genes

environmental pressure forcing change or death

3. Which of the above does not have any scientific evidence to support it, explain?

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